<u>IN THE CLAIMS</u>

Please amend the claims as follows:

Claims 1-24 (Canceled).

Claim 25 (Currently Amended): ~~The display apparatus according to claim 22,~~ <u>A</u>

<u>display apparatus capable of detecting that an arbitrary place of a display screen has been</u>

<u>pointed by a human hand or a pointing member, the display apparatus comprising:</u>

<u>display elements formed near intersections of signal lines and scanning lines</u>

<u>respectively arranged in vertical and horizontal directions;</u>

<u>image pickup units which pick up incident light in a predetermined range;</u>

<u>D/A conversation circuits provided every a plurality of signal lines to supply pixel</u>

<u>data for display to a plurality of signal lines associated therewith;</u>

<u>amplifier circuits which output the picked-up image data in the image pickup units</u>

<u>from pixels by using signal lines that are not supplied with pixel data, while the D/A</u>

<u>conversion circuits supply pixel data to signal lines in order; and</u>

<u>a pointer detection portion which detects a position pointed by a hand or a pointing</u>

<u>member on the display screen, on the basis of the picked-up image data,</u>

wherein whenever the image pickup units perform image pickup, the pointer detection

portion detects an image that indicates a pointed position, and when a diameter of the image

is maximized, the pointer detection portion judges that the display screen has been pressed

strongly by a hand or a pointing member.

Claim 26 (Currently Amended): ~~The display apparatus according to claim 22,~~ <u>A</u>

<u>display apparatus capable of detecting that an arbitrary place of a display screen has been</u>

<u>pointed by a human hand or a pointing member, the display apparatus comprising:</u>

display elements formed near intersections of signal lines and scanning lines

respectively arranged in vertical and horizontal directions;

image pickup units which pick up incident light in a predetermined range;

D/A conversation circuits provided every a plurality of signal lines to supply pixel

data for display to a plurality of signal lines associated therewith;

amplifier circuits which output the picked-up image data in the image pickup units

from pixels by using signal lines that are not supplied with pixel data, while the D/A

conversion circuits supply pixel data to signal lines in order; and

a pointer detection portion which detects a position pointed by a hand or a pointing

member on the display screen, on the basis of the picked-up image data,

wherein the pointer detection portion performs a plurality of product sum

computations for successively adding image data of every scanning line, and a division

computation conducted using a result of the product sum computations as a numerator or a

denominator.

Claim 27 (Original): The display apparatus according to claim 26, comprising:

a first computation circuit formed on the substrate on which the display elements are

formed to conduct the product sum computations; and

a second computation circuit formed on a semiconductor substrate different from the

substrate on which the display elements are formed to conduct the division computation.

Claim 28 (Currently Amended): ~~The display apparatus according to claim 22,~~ A

display apparatus capable of detecting that an arbitrary place of a display screen has been

pointed by a human hand or a pointing member, the display apparatus comprising:

Claim 29 (Original): The display apparatus according to claim 28, wherein the

picked-up image data is a picked-up image subjected to image processing.

30 (Canceled).

display elements formed near intersections of signal lines and scanning lines

respectively arranged in vertical and horizontal directions;

image pickup units which pick up incident light in a predetermined range;

D/A conversation circuits provided every a plurality of signal lines to supply pixel

data for display to a plurality of signal lines associated therewith;

amplifier circuits which output the picked-up image data in the image pickup units

from pixels by using signal lines that are not supplied with pixel data, while the D/A

conversion circuits supply pixel data to signal lines in order; and

a pointer detection portion which detects a position pointed by a hand or a pointing

member on the display screen, on the basis of the picked-up image data, wherein

denoting the number of pixels in a signal line direction of the display screen by X, the

number of pixels in a scanning line direction by Y, and the picked-up image data in an

arbitrary pixel (x, y) (where $0 \leq x \leq X$ and $0 \leq y \leq Y$) by L(x, y),

the pointer detection portion obtains central coordinates (Ex, Ey) of the hand or

pointing member using expression (17), and obtains widths (Vx, Vy) of the hand or pointing

member in the x direction and y direction using expression (18).

$$Ex = \frac{\sum_{y=0}^{239} \sum_{x=0}^{319} xL(x,y)}{\sum_{y=0}^{239} \sum_{x=0}^{319} L(x,y)} \qquad Ey = \frac{\sum_{y=0}^{239} \sum_{x=0}^{319} yL(x,y)}{\sum_{y=0}^{239} \sum_{x=0}^{319} L(x,y)} \qquad (17)$$

$$Vx = \frac{\sum_{y=0}^{239} \sum_{x=0}^{319} (x-Ex)^2 L(x,y)}{\sum_{y=0}^{239} \sum_{x=0}^{319} L(x,y)} \qquad Vy = \frac{\sum_{y=0}^{239} \sum_{x=0}^{319} (y-Ey)^2 L(x,y)}{\sum_{y=0}^{239} \sum_{x=0}^{319} L(x,y)} \qquad (18)$$